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(54) Title: MULTIPLE VIEW ENDOSCOPES

(57) Abstract: The present invention relates to an endoscope comprising two or more optical channels that produce two or more distinct views. The endoscope of the invention is suitable for performing various surgical procedures, including fundoplications, stapling of the stomach for obesity management, bladder neck sling procedures for incontinence management, and other procedures that may benefit from having multiple interior views. Such treatments may be performed percutaneously, or by gaining access via natural body canals such as the esophagus or urethra.



INTERNATIONAL SEARCH REPORT

Inte Ional Application No

		PCT/IL 01,	/00843	
A. CLASSIF IPC 7	FICATION OF SUBJECT MATTER A61B1/00			
According to	International Patent Classification (IPC) or to both national classification	tion and IPC		
B. FIELDS				
Minimum do IPC 7	cumentation searched (classification system followed by classification $A61B$	n symbols)		
	ion searched other than minimum documentation to the extent that su			
	ata base consulted during the international search (name of data bas	e and, where practical, search terms used)	
C. DOCUME	ENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where appropriate, of the rele	vant passages	Relevant to claim No.	
X	WO 91 00049 A (KARL STORZ GMBH & 10 January 1991 (1991-01-10) page 17, line 6 -page 23, line 14 figures 1-6C	1		
A	11gures 1-00	2,4,5		
Х	DE 42 41 938 A (KARL STORZ GMBH & CO.) 16 June 1994 (1994-06-16) column 7, line 41 -column 9, line 33		1	
γ	figures		7	
Y	WO 00 53102 A (GAZAYERLI) 14 September 2000 (2000-09-14) page 7, line 20 -page 9, line 11 page 19, line 13 -page 23, line 3		7	
A	figures 1-2B		8	
		/		
X Furth	ner documents are listed in the continuation of box C.	X Patent family members are listed	in annex.	
'A' docume consid 'E' earlier of filing d 'L' docume which citation 'O' docume other r 'P' docume	ent defining the general state of the art which is not sered to be of particular relevance document but published on or after the international atte at the international atte and the sered to establish the publication date of another or of ther special reason (as specified) and referring to an oral disclosure, use, exhibition or means and the serior to the international filing date but	PT later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.		
	actual completion of the international search 1 June 2002	Date of mailing of the international se	or. 2002	
Name and n	nailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tet (+31-70) 340-2040, Tx. 31 651 epo nt, Fax: (+31-70) 340-3016	Authorized officer Chen, A	U. LUUL	



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		PCT/IL 01/00843
C.(Continu:	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category •	Citation of document, with Indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3 889 662 A (MITSUI) 17 June 1975 (1975-06-17) column 4, line 4 - line 50	1,6
A	WO 89 11252 A (UNIVERSITY OF CONNECTICUT) 30 November 1989 (1989-11-30) page 19, line 3 -page 24, line 11 figures 1,2,4,5	1-3
A	US 5 776 049 A (TAKAHASHI) 7 July 1998 (1998-07-07) column 5, line 3 -column 7, line 16 column 9, line 19 -column 10, line 19 figures 2A,B,9A,B	4
A	US 5 395 030 A (KURAMOTO ET AL.) 7 March 1995 (1995-03-07) column 5, line 56 -column 8, line 4 column 9, line 50 -column 13, line 45 column 26, line 43 -column 28, line 19 figures 1,6-14,58A-59C	7-10
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international application No. PCT/IL 01/00843

INTERNATIONAL SEARCH REPORT

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)
This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful international Search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)
This International Searching Authority found multiple Inventions in this International application, as follows:
see additional sheet
As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on Protest The additional search fees were accompanied by the applicant's protest. X No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-6

Endoscope comprising two or more separate optical channels, where each optical channel comprises an objective lens for focusing the image on to an image sensor chip. Each objective lens is located at a different position along the length of the endoscope.

2. Claims: 7, 8-10

Endsocope and surgical stapler combination.



int ional Application No PCT/IL 01/00843

Information on patent family members

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 9100049	Α	10-01-1991	DE	3921233 A1	14-02-1991
			AT	120628 T	15-04-1995
			WO	9100049 A1	10-01-1991
			DE	59008855 D1	11-05-1995
			EΡ	0434793 A1	03-07-1991
			JP	4500768 T	13-02-1992
			US	5166787 A	24-11-1992
DE 4241938	Α	16-06-1994	DE	4241938 A1	16-06-1994
			WO	9413190 A1	23-06-1994
			US	2002007110 A1	17-01-2002
WO 0053102	Α	14-09-2000	US	6159146 A	12-12-2000
			ΑU	3623300 A	28-09-2000
			WO	0053102 A1	14-09-2000
US 3889662	A	17-06-1975	DE	2425827 A1	19-12-1974
WO 8911252	Α	30-11-1989	US	4938205 A	03-07-1990
			CA	1316252 A1	13-04-1993
•			EΡ	0416025 A1	13-03-1991
			JP	4500321 T	23-01-1992
			WO	8911252 A1	30-11-1989
			US	5109276 A	28-04-1992
			US	5200838 A	06-04-1993
			US	5172685 A	22-12-1992
			US	5200819 A	06-04-1993
US 5776049	Α	07-07-1998	JP	3220538 B2	22-10-2001
			JP	6194580 A	15-07-1994
			US	5522789 A	04-06-1996